

1. **Project Title: Guste Island Aquatic Ecosystem Restoration**

2. Entity/Individual Nominating Project:
St. Tammany Parish Government

3. Contact Information:
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4. Total CIAP Funds Requested (Tier 2 Designation): \$5,200,000.00

5. Parish CIAP Funds Proposed: \$1,200,000.00

6. State CIAP Funds Proposed: \$4,000,000.00

7. Infrastructure Funds Proposed: \$0.00

8. Description and location of Project:

The Guste Island Utility Company utilizes a unique biological wastewater treatment system. The process of wetland assimilation involves discharging nitrogen enriched treated sewer effluent into marshland. The beneficial result is increased growth of grass, plants, and trees providing refuge to waterfowl and animals. It impedes saltwater intrusion and inhibits coastal erosion.

The project consists of the acquisition of the 352 acre tract of marshland on which the Guste Island Utility Company's operations currently reside and discharge into.

9. Project Type:

Conservation, restoration and protection of coastal area, including wetland

10. Project Justification:

The Aquatic Restoration Project at Guste Island is a unique project that will allow the Parish Government to accomplish a number of goals. Currently the Guste Island Utility Company owns the 352 acre parcel that contains a sixty (60) acre oxidation pond with a wastewater treatment capacity of sixty thousand (60,000) gallons per day. The Guste Island Utility Co. utilizes a wetland assimilation process involving discharging nitrogen enriched treated sewer effluent into the marshland which is part of the 352 acre parcel. If acquired the Parish would make improvements to the existing oxidation pond (as well as construct a similar size pond next to it in the future), at its expense, so as to accept wastewater flows from the surrounding developments, which use their own separate wastewater treatment plants, thus increasing the flow of

enriched treated sewer effluent to the tract's marshland. Further, the Parish will execute agreements with the Guste Island Utility Co., which owns the surrounding 3,034 acres of marshland so as to allow for the enriched effluent to flow over that marshland and provide the same aforementioned benefits.

11. Project cost share:

The St. Tammany Parish Government will assume the cost of improvements and maintenance associated with the proposed project's implementation.

CRITERIA TO BE USED TO EVALUATE PROPOSED COASTAL RESTORATION & CONSERVATION PROJECTS

1. Is the proposed project free of issues that may impact timely implementation of the project features?

YES. The property in question has been determined through a Use Attainability Analysis (UAA) to receive positive impacts from the wetland assimilation process. Further, much of the engineering required to determine the flow of the effluent and future improvements to the site to increase the treatment capacity have been largely completed.

2. Is the proposed project linked to a regional strategy for maintaining established landscape features critical to a sustainable ecosystem structure and function?

YES. The proposed project is an integral part of the St. Tammany Parish Wastewater Consolidation Program. The Consolidation Program uses a regional approach to reduce the number wastewater discharges located in geographically designated wastewater management areas through the construction of regional conveyance lines and expansion of existing utilities sites to develop said sites into a regional treatment facility. The proposed improvements to the wetland assimilation process will allow the Guste Island treatment pond to accept sewerage flows from residential and commercial properties, many of which are contributing to the areas non-point pollution problems because they are utilizing on-site septic systems, or connected to hydraulically overloaded package wastewater treatment plants. For example, in completed, this project will allow the Guste Island site to accept flows from six (6) existing treatment plants, which currently discharge directly into local water bodies, and discharge the treated effluent through the wetlands. If acquired, the property will be preserved in its natural state and kept out of commerce.

3. Does the proposed project protect health and safety or infrastructure of national, state, regional or local significance?

THIS PROJECT WOULD PROTECT HEALTH AND SAFETY OF NATIONAL, STATE, REGIONAL, AND LOCAL SIGNIFICANCE in the following ways:

- Aid recovery of a 352 acre freshwater marshland, as well as another 3,034 acres over which the treated effluent will flow.

- Provide floodplain areas for increased drainage capacity
 - Preserve native flora and fauna
 - Increase capacity of wastewater intake for increased population and development
 - Provide regional sanitary sewerage systems for existing commercial and residential properties thereby eliminating inadequate individual systems
 - Decrease Point Source and Non-Point Source Pollution from inadequate individual systems
 - To protect property from rising water by maintaining important drainage floodplains
 - To increase storm water drainage capacity
 - Prevent coastal erosion
 - Preserve natural scenic waterways
4. How cost effective is proposed project?
 HIGHLY COST EFFECTIVE. The wetland restoration project is highly cost effective because the project will ultimately provide multiple benefits. First, the project will implement a wastewater treatment method that is cost effective because providing regional wastewater treatment utilizing said process is far less expensive. Second, the treatment method will increase the flow of effluent providing inundation of a coastal area with fresh water and nutrients. Third, the cost effective delivery of regional wastewater treatment when utilizing the assimilation method will decrease the point source and non-point source pollution from inadequate systems to enter the coastal area.
5. What is the certainty of benefits resulting from implementation of the proposed project?
 100%. A Use Attainability Analysis from Dr. John Day, LSU Coastal Ecology Department specific for the Guste Island Marsh area determined positive impact for use of wetland assimilation.
6. Does the proposed project address an area of critical conservation/restoration need or a high land loss area?
 YES. Ownership of 352 acre wetland tract by the St. Tammany Parish Government will keep area out of commerce and mitigation while conserving the floodplain.
7. How sustainable are the benefits of the proposed project?
 HIGH. A regionalized wastewater system will bring increased effluent capacity providing continual inundation of coastal area with freshwater and nutrients.